

Amendments to the Claims

Please amend the claims as follows:

1. (original) A fiber reinforcement material, comprising:  
a plurality of polyolefinic strands of monofilaments of about 350 to about 6000 denier per filament, twisted to form a fiber bundle, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm).
2. (original) The fiber reinforcement material of claim 1, wherein the degree of twist is less than about 2.2 turns/inch (about 0.87 turns/cm).
3. (original) The fiber reinforcement material of claim 1, wherein the degree of twist ranges from greater than about 0.9 turns/inch (about 0.36 turns/cm) to about 1.1 turns/inch (about 0.43 turns/cm).
4. (original) The fiber reinforcement material of claim 1, wherein the degree of twist is about 1.1 turns/inch (about 0.43 turns/cm).
5. (original) The fiber reinforcement material of claim 1, wherein the strands are about 750 denier per filament.
6. (original) The fiber reinforcement material of claim 1, wherein the strands are a copolymer formed of polypropylene and polyethylene.
7. (original) The fiber reinforcement material of claim 6, wherein the copolymer is about 75-80 percent by weight polypropylene and about 20-25 percent by weight polyethylene.

8. (original) The fiber reinforcement material of claim 6, wherein the polypropylene is a low melt polypropylene and the polyethylene is a high density polyethylene.
9. (original) The fiber reinforcement material of claim 1, wherein the length of the component is about 19 to 60 mm.
10. (original) The fiber reinforcement material of claim 1, wherein the fiber bundle is non-interconnected.
11. (original) The fiber reinforcement material of claim 1, wherein the monofilaments are nonfibrillating.
12. (previously presented) A reinforcement for cementitious material, comprising:
  - a plurality of polyolefin monofilaments of about 350 to about 6000 denier per filament, the plurality of monofilaments being in a twisted configuration, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm).
13. (original) The fiber reinforcement material of claim 12, wherein the degree of twist is less than about 2.2 turns/inch (about 0.87 turns/cm).
14. (original) The fiber reinforcement material of claim 12, wherein the degree of twist ranges from greater than about 0.9 turns/inch (about 0.36 turns/cm) to about 1.1 turns/inch (about 0.43 turns/cm).
15. (original) The fiber reinforcement material of claim 12, wherein the degree of twist is about 1.1 turns/inch (about 0.43 turns/cm).

16. (original) The fiber reinforcement material of claim 12, wherein the cementitious material is concrete.
17. (previously presented) A reinforcement for cementitious material, comprising:  
a plurality of polyolefin monofilaments, the plurality of monofilaments being in a twisted configuration, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm), wherein the cementitious material is asphalt.
18. (original) A reinforced cementitious material, comprising:  
a cementitious mass; and,  
a fiber component dispersed throughout the mass, the fiber component being a plurality of polyolefinic strands of monofilaments of about 350 to about 6000 denier per filament twisted to form a fiber bundle, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm).
19. (original) The fiber reinforcement material of claim 18, wherein the degree of twist is less than about 2.2 turns/inch (about 0.87 turns/cm).
20. (original) The fiber reinforcement material of claim 18, wherein the degree of twist ranges from greater than about 0.9 turns/inch (about 0.36 turns/cm) to about 1.1 turns/inch (about 0.43 turns/cm).
21. (original) The fiber reinforcement material of claim 18, wherein the degree of twist is about 1.1 turns/inch (about 0.43 turns/cm).

22. (original) The fiber reinforcement material of claim 18, wherein the strands are a copolymer formed of polypropylene and polyethylene.
23. (original) The fiber reinforcement material of claim 22, wherein the copolymer is about 75-80 percent by weight polypropylene and about 20-25 percent by weight polyethylene.
24. (original) The fiber reinforcement material of claim 18, wherein the length of the component is about 19 to 60 mm.
25. (original) The fiber reinforcement material of claim 18, wherein the monofilaments are nonfibrillating and the fiber bundle is non-interconnected.
26. (original) The fiber reinforcement material of claim 18, wherein the cementitious mass is concrete.
27. (previously presented) A reinforced cementitious material, comprising:  
a cementitious mass; and,  
a fiber component dispersed throughout the mass, the fiber component being a plurality of polyolefinic strands of monofilaments of about 350 to about 6000 denier per filament twisted to form a fiber bundle, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm), wherein the cementitious mass is asphalt.

28. (currently amended) A reinforcement material for a ~~cementitious~~ cementitious material formed by twisting a plurality of polyolefinic strands of monofilaments of about 350 to about 6000 denier per filament into a fiber bundle for mixing into a cementitious mass, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm).

29. (original) The reinforcement material of claim 28, wherein the degree of twist is less than about 2.2 turns/inch (about 0.87 turns/cm).

30. (original) The reinforcement material of claim 28, wherein the degree of twist ranges from greater than about 0.9 turns/inch (about 0.36 turns/cm) to about 1.1 turns/inch (about 0.43 turns/cm).

31. (original) The reinforcement material of claim 28, wherein the degree of twist is about 1.1 turns/inch (about 0.43 turns/cm).

32. (original) The reinforcement material of claim 28, wherein the cementitious mass is concrete.

33. (currently amended) A reinforcement material for a ~~cementitious~~ cementitious material formed by twisting a plurality of polyolefinic strands of monofilaments into a fiber bundle for mixing into a cementitious mass, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm), wherein the cementitious mass is asphalt.

34-65. (canceled)

66. (original) A reinforced cementitious material, comprising:  
    a synthetic fiber blend distributed through a matrix of the cementitious material, the synthetic fiber blend, including:  
        a first fiber component formed of a homopolymer polypropylene fiber; and  
        a second fiber component being discrete from the first fiber component and being a copolymer formed of a polypropylene and a high density polyethylene, the second fiber component being a plurality of monofilaments twisted to form a non-interconnected bundle, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm).
67. (original) The reinforced cementitious material of claim 66, wherein the degree of twist is less than about 2.2 turns/inch (about 0.87 turns/cm).
68. (original) The reinforced cementitious material of claim 66, wherein the degree of twist ranges from greater than about 0.9 turns/inch (about 0.36 turns/cm) to about 1.1 turns/inch (about 0.43 turns/cm).
69. (original) The reinforced cementitious of claim 66, wherein the degree of twist is about 1.1 turns/inch (about 0.43 turns/cm).
70. (original) The reinforced cementitious material of claim 66, wherein the first fiber component is fibrillated and present in the synthetic fiber blend in amounts ranging from about 5 to about 50 by total weight percent, and the second fiber component is comprised of one or more twisted nonfibrillating monofilaments present in the synthetic fiber blend in amounts ranging from about 50 to about 95 by total weight percent.

71. (original) The reinforced cementitious material of claim 66, wherein the first fiber component is present in the synthetic blend in about 6.7 total weight percent and second fiber component is present in the synthetic fiber blend in about 93.3 percent by total weight percent.

72. (original) The reinforced cementitious material of claim 66, wherein the synthetic fiber blend is present in the cementitious material in amounts ranging from about 0.1 to about 2.0 percent by volume.

73. (original) The reinforced cementitious material of claim 66, wherein the synthetic fiber blend is present in the cementitious material in amounts ranging from about 0.5 to about 2.0 percent by volume.

74. (original) The reinforced cementitious material of claim 66, wherein the synthetic fiber blend is present in the cementitious material in amounts ranging from about 0.3 to about 2.0 percent by volume.

75. (original) The reinforced cementitious material of claim 66, wherein the cementitious material is reinforced concrete.

76. (original) The reinforced cementitious material of claim 66, wherein the cementitious material is reinforced asphalt.

77-116. (canceled)

117. (previously presented) A fiber reinforcement material, comprising:  
a plurality of polyolefinic strands of monofilaments of about 350 to about 6000 denier per filament, twisted to form a fiber bundle, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm), wherein the plurality of strands of monofilaments are twisted to form a non-interconnected bundle in the absence of a wetting agent.

118. (previously presented) A fiber reinforcement material, comprising:  
a plurality of polyolefinic strands of monofilaments of about 350 to about 6000 denier per filament, twisted to form a fiber bundle, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm), wherein the plurality of strands of monofilaments form a first fiber component, the fiber reinforcement material further comprising a second fiber component that is discrete from the first fiber component and is fibrillated and formed of a homopolymer material.

119. (previously presented) The fiber reinforcement material of claim 118, wherein the first fiber component is present in amounts ranging from about 50 to 95 weight percent and the second fiber component is present in amounts ranging from about 5 to about 50 weight percent.

120. (previously presented) The fiber reinforcement material of claim 118, wherein the first fiber component and the second fiber component are blended in the absence of a wetting agent.

121. (previously presented) The fiber reinforcement material of claim 118, wherein the first fiber component has a fiber length of about 19 to about 60 mm and the second fiber component has a fiber length of about 19 to about 60 mm.



122. (previously presented) The fiber reinforcement material of claim 118, wherein the first fiber component and the second fiber component have about the same fiber length.

123. (previously presented) The fiber reinforcement material of claim 118, wherein the first fiber component is a copolymer formed of a major amount of a polypropylene and a minor amount of a high density polyethylene, and the second fiber component is formed of a homopolymer polypropylene fiber.

124. (previously presented) The fiber reinforcement material of claim 118, wherein the second fiber component is about 100 to about 20,000 denier per filament.

125. (previously presented) A reinforcement for cementitious material, comprising:  
a plurality of polyolefin monofilaments, the plurality of monofilaments being in a twisted configuration, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm), wherein the plurality of monofilaments are twisted to form a non-interconnected bundle in the absence of a wetting agent.

126. (previously presented) A reinforcement for cementitious material, comprising:  
a plurality of polyolefin monofilaments, the plurality of monofilaments being in a twisted configuration, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm), wherein the plurality of monofilaments form a first fiber component, the reinforcement for cementitious material further comprising a second fiber component that is discrete from the first fiber component and is fibrillated and formed of a homopolymer material.

127. (previously presented) The reinforcement for cementitious material of claim 126, wherein the first fiber component is present in amounts ranging from about 50 to 95 weight percent and the second fiber component is present in amounts ranging from about 5 to about 50 weight percent.

128. (previously presented) The reinforcement for cementitious material of claim 126 wherein the first fiber component and the second fiber component are blended in the absence of a wetting agent.

129. (previously presented) The reinforcement for cementitious material of claim 126, wherein the first fiber component has a fiber length of about 19 to about 60 mm and the second fiber component has a fiber length of about 19 to about 60 mm.

130. (previously presented) The reinforcement for cementitious material of claim 126, wherein the first fiber component and the second fiber component have about the same fiber length.

131. (previously presented) The reinforcement for cementitious material of claim 126, wherein the first fiber component is a copolymer formed of a major amount of a polypropylene and a minor amount of a high density polyethylene, and the second fiber component is formed of a homopolymer polypropylene fiber.

132. (previously presented) The reinforcement for cementitious material of claim 126, wherein the first fiber component is about 350 to about 6000 denier per filament and the second fiber component is about 100 to about 20,000 denier per filament.

133. (previously presented) The reinforcement for cementitious material of claim 126 wherein the first fiber component is formed of about 70 to 80 percent by weight polypropylene and about 20 to 30 percent by weight high density polyethylene.

134. (previously presented) A reinforced cementitious material, comprising:  
a cementitious mass; and,  
a fiber component dispersed throughout the mass, the fiber component being a plurality of polyolefinic strands of monofilaments of about 350 to about 6000 denier per filament twisted to form a fiber bundle, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm), wherein the plurality of strands of monofilaments are twisted to form a non-interconnected bundle in the absence of a wetting agent.

135. (previously presented) A reinforced cementitious material, comprising:  
a cementitious mass; and,  
a fiber component dispersed throughout the mass, the fiber component being a plurality of polyolefinic strands of monofilaments of about 350 to about 6000 denier per filament twisted to form a fiber bundle, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm), wherein the plurality of strands of monofilaments form a first fiber component, the reinforced cementitious material further comprising a second fiber component that is discrete from the first fiber component and is fibrillated and formed of a homopolymer material.

136. (previously presented) The reinforced cementitious material of claim 135, wherein the first fiber component is present in amounts ranging from about 50 to 95 weight percent and the second fiber component is present in amounts ranging from about 5 to about 50 weight percent.

137. (previously presented) The reinforced cementitious material of claim 135, wherein the first fiber component and the second fiber component are blended in the absence of a wetting agent.

138. (previously presented) The reinforced cementitious material of claim 135, wherein the first fiber component has a fiber length of about 19 to about 60 mm and the second fiber component has a fiber length of about 19 to about 60 mm.

139. (previously presented) The reinforced cementitious material of claim 135, wherein the first fiber component and the second fiber component have about the same fiber length.

140. (previously presented) The reinforced cementitious material of claim 135, wherein the first fiber component is a copolymer formed of a major amount of a polypropylene and a minor amount of a high density polyethylene, and the second fiber component is formed of a homopolymer polypropylene fiber.

141. (previously presented) The reinforced cementitious material of claim 135, wherein the second fiber component is about 100 to about 20,000 denier per filament.

142. (previously presented) The reinforced cementitious material of claim 135, wherein the first fiber component and the second fiber component form a synthetic fiber blend, the synthetic fiber blend being present in the cementitious mass in amounts ranging from about 0.1 to about 2.0 percent by volume.

143. (previously presented) The reinforced cementitious material of claim 142, wherein the synthetic fiber blend is present in the cementitious mass in amounts ranging from about 0.3 to about 2.0 percent by volume

144. (previously presented) The reinforced cementitious material of claim 142, wherein the synthetic fiber blend is present in the cementitious mass in amounts ranging from about 0.5 to about 2.0 percent by volume.

145. (currently amended) A reinforcement material for a ~~cementitious~~ cementitious material formed by twisting a plurality of polyolefinic strands of monofilaments into a fiber bundle for mixing into a cementitious mass, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm), wherein the plurality of strands of monofilaments are twisted to form a non-interconnected bundle in the absence of a wetting agent.

146. (currently amended) A reinforcement material for a ~~cementitious~~ cementitious material formed by twisting a plurality of polyolefinic strands of monofilaments into a fiber bundle for mixing into a cementitious mass, the degree of twist being greater than about 0.9 turns/inch (about 0.36 turns/cm), wherein the plurality of strands of monofilaments form a first fiber component, the reinforcement material further comprising a second fiber component that is discrete from the first fiber component and is fibrillated and formed of a homopolymer material.

147. (previously presented) The reinforcement material of claim 146, wherein the first fiber component is present in amounts ranging from about 50 to 95 weight percent and the second fiber component is present in amounts ranging from about 5 to about 50 weight percent.

148. (previously presented) The reinforcement material of claim 146, wherein the first fiber component and the second fiber component are blended in the absence of a wetting agent.

149. (previously presented) The reinforcement material of claim 146, wherein the first fiber component has a fiber length of about 19 to about 60 mm and the second fiber component has a fiber length of about 19 to about 60 mm.

150. (previously presented) The reinforcement material of claim 146, wherein the first fiber component and the second fiber component have about the same fiber length.

151. (previously presented) The reinforcement material of claim 146, wherein the first fiber component is a copolymer formed of a major amount of a polypropylene and a minor amount of a high density polyethylene, and the second fiber component is formed of a homopolymer polypropylene fiber.

152. (previously presented) The reinforcement material of claim 146, wherein the first fiber component is about 350 to about 6000 denier per filament and the second fiber component is about 100 to about 20,000 denier per filament.

153. (previously presented) The reinforcement material of claim 146 wherein the first fiber component is formed of about 70 to 80 percent by weight polypropylene and about 20 to 30 percent by weight high density polyethylene.

154. (previously presented) The reinforced cementitious material of claim 66, wherein the plurality of monofilaments are twisted to form the non-interconnected bundle in the absence of a wetting agent.

155. (previously presented) The reinforced cementitious material of claim 66, wherein the first fiber component and the second fiber component are blended in the absence of a wetting agent.

156. (previously presented) The reinforced cementitious material of claim 66, wherein the first fiber component is about 100 to about 20,000 denier per filament, and the second fiber component is about 350 to about 6000 denier per filament.

157. (previously presented) A fiber reinforcement material, comprising:  
a plurality of polyolefinic strands of monofilaments of about 350 to about 6000 denier per filament, twisted to form a fiber bundle in the absence of a wetting agent.

158. (previously presented) The fiber reinforcement material of claim 157, wherein the reinforcement is a reinforcement for cementitious material.

159. (previously presented) The fiber reinforcement material of claim 158, wherein the cementitious material is concrete.

160. (previously presented) The fiber reinforcement material of claim 158, wherein the cementitious material is asphalt.

161. (previously presented) A reinforcement for cementitious material, comprising:

a plurality of polyolefin monofilaments of about 350 to about 6000 denier per filament, the plurality of monofilaments being in a twisted configuration in the absence of a wetting agent.

162. (previously presented) The reinforcement of claim 161, wherein the cementitious material is concrete.

163. (previously presented) The reinforcement of claim 161, wherein the cementitious material is asphalt.

164. (previously presented) A reinforced cementitious material, comprising:

a cementitious mass; and,

a fiber component dispersed throughout the mass, the fiber component being a plurality of polyolefinic strands of monofilaments of about 350 to about 6000 denier per filament twisted to form a fiber bundle in the absence of a wetting agent.

165. (previously presented) The reinforced cementitious material of claim 164, wherein the cementitious material is concrete.

166. (previously presented) The reinforced cementitious material of claim 164, wherein the cementitious material is asphalt.



167. (currently amended) A reinforcement material for a ~~cementitious~~  
cementitious material formed by twisting a plurality of polyolefinic strands of  
monofilaments of about 350 to about 6000 denier per filament into a fiber bundle  
in the absence of a wetting agent for mixing into a cementitious mass.

168. (previously presented) The reinforcement material of claim 167, wherein  
the cementitious material is concrete.

169. (previously presented) The reinforcement material of claim 167, wherein  
the cementitious material is asphalt.

170. (previously presented) A reinforced cementitious material, comprising:  
a synthetic fiber blend distributed through a matrix of the cementitious  
material, the synthetic fiber blend, including:  
a first fiber component formed of a homopolymer polypropylene  
fiber; and  
a second fiber component being discrete from the first fiber  
component and being a copolymer formed of a polypropylene and a high density  
polyethylene, the second fiber component being a plurality of monofilaments of  
about 350 to about 6000 denier per filament twisted to form a fiber bundle in the  
absence of a wetting agent.

171. (previously presented) The reinforced cementitious material of claim 170,  
wherein the cementitious material is concrete.

172. (previously presented) The reinforced cementitious material of claim 170,  
wherein the cementitious material is asphalt.